

JUL 24 2009

AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A method of making a thin film explosive detonator, comprising:
forming a substrate layer;
depositing a metal layer of comprising a metal explosive cation in situ on the substrate layer; and
reacting the metal layer comprising said metal explosive cation with a HN_3 gas reactant for forming a primary explosive layer,
wherein said primary explosive layer is a detonator layer comprised of an azide-based explosive salt with a predetermined thickness.
2. (Previously Presented) The method of claim 1, wherein the substrate layer comprises silicon.
3. (Previously Presented) The method of claim 1, wherein the metal layer comprises one of copper, nickel, cadmium, and silver.
4. (Canceled)
5. (Previously Presented) The method of claim 1, wherein said depositing a metal layer of a metal explosive cation in situ on the substrate layer includes depositing the metal layer by at least one of plasma vapor deposition, chemical vapor deposition, electroplating, sputtering and sintering.
6. (Previously Presented) The method of claim 1, further comprising depositing an organic flyer layer on top of the primary explosive layer.

7. (Previously Presented) The method of claim 1, further comprising forming a barrel in the substrate layer.

8-17 (Cancelled)

18. (Previously Presented) The method of claim 1, wherein said azide-based explosive salt is comprised of one of copper azide, nickel azide, cadmium azides, and silver azides.

19. (Previously Presented) The method of claim 1, wherein said primary explosive layer is comprised of copper azide with a predetermined thickness.

20. (Previously Presented) The method of claim 1, wherein said primary explosive layer is comprised of no more than about 10 milligrams of primary explosive.